

REMARKS

In the Office Action, claims 1, 3-11, 13-20, 22-35, 39, 40, 43-45 and 47-51 were rejected. Applicant traverses this rejection. No amendments have been made in response to the Office Action, and claims 1, 3-11, 13-20, 22-35, 39, 40, 43-45 and 47-51 remain pending in the present application. Applicant respectfully requests reconsideration of the claim rejections prior to appeal.

In the Office Action, claims 16-19, 22, 25-28 and 30-32 were rejected under 35 USC 102(b) as anticipated by the Shaw et al. reference, US Patent No.: 4,667,737. This rejection is respectfully traversed.

The Shaw et al. reference discloses a sealing apparatus that is used with a submersible motor. The sealing apparatus has a tubular housing assembly 10 attached to the top end of a conventional submersible electric motor housing 1. An end flange 1a on the conventional motor housing is mated with flange 10a of the tubular housing assembly 10. A motor shaft 1d is provided with splines 1e that engage corresponding splines of a coupling 2. The opposite end of coupling 2 also has splines for receiving the splined bottom end 5a of motor shaft extension 5. (See column 3, lines 3-20). However, the Shaw et al. reference fails to disclose or suggest numerous elements of the subject claims. In the Office Action, statements were made that the Shaw et al. reference discloses various features of the claims. However, support for these statements is not cited; and after review of the actual Shaw et al. reference Applicant respectfully submits the reference simply does not disclose these elements.

For example, a statement is made in the Office Action that the Shaw et al. reference discloses forming a motive unit by connecting a motor section shaft to a protector section shaft to form "an axially affixed connection". (See Office Action, page 2, section 3). However, the actual Shaw et al. reference describes and teaches the exact opposite in the form of conventional, splined shaft ends to accommodate axial movement during assembly and disassembly of the components.

In a further example, a statement is made in the Office Action that the Shaw et al. reference discloses "prefilling the combined motor section and protector section with a lubricating fluid prior to delivery of the combined motor section and protector section to a wellbore location". (See Office Action, page 2, section 3). Again, the actual Shaw et al. reference provides absolutely no disclosure or teaching related to prefilling the combined motor section and protector section prior to moving the combined unit to a wellbore location. Instead, the Shaw et al. reference discloses a conventional pumping system with separate submersible motor and motor protector that can be connected via flanges 1a and 10a as described above. As described in the specification of the present application, such conventional systems are normally delivered to the wellbore location, assembled and topped off with lubricating fluid at the wellbore location instead of prefilling a combined unit. The Examiner attempts to ignore this element of at least independent claim 16 by effectively arguing the Shaw et al. pumping system has lubricating oil when moved downhole. However, the language of the claim cannot be ignored or rewritten to artificially support the rejection. Claim 16 does not recite prefilling before moving the combined motor section and protector section to a location in the wellbore but rather prior to moving the combination to a "wellbore location"; and the meaning of this claim language is supported throughout the specification. (See, for example, paragraphs 0027 and 0041 of the Specification).

In yet a further example, a statement is made in the Office Action that the Shaw et al. reference discloses oil communication holes deployed at a nonzero angle to correspond "with an angle at which the motive unit is positioned relative to vertical during filling of the motive unit with oil". (See Office Action, page 3). However, the Shaw et al. reference provides absolutely no disclosure or teaching related to this assertion. The Shaw et al. reference discloses a variety of internal fluid flow paths at various, different angles; but the reference is believed to be completely devoid of any disclosure or teaching related to providing oil communication holes deployed at a nonzero angle that corresponds with an angle at which the motive unit is positioned during filling. In fact, the Shaw et al. reference again appears to disclose just the opposite by illustrating flow passages at a variety of different angles. These and other examples in the Office Action demonstrate that the Shaw et al. reference is improperly relied on as an anticipatory reference and, in fact, fails to disclose numerous elements of the rejected claims.

By way of specific examples, the Shaw et al. reference fails to disclose or suggest "connecting a motor section shaft to a protector section shaft to form an axially affixed connection"; or prefiling the combined motor section and protector section "prior to delivery of the combined motor section and protector section to a wellbore location " as recited in independent claim 16. Additionally, the reference fails to disclose or suggest "delivering the motive unit to an oil production well as a single unit" or "providing the motive unit with a plurality of oil communication holes deployed at a nonzero angle with respect to the longitudinal axis such that the nonzero angle of the plurality of oil communication holes corresponds with an angle at which the motive unit is positioned relative to vertical during filling of the motive unit with oil" as recited in independent claim 26. Accordingly, the Shaw et al. reference fails to disclose each and every element of the subject claims, and the rejection under 35 USC 102(b) must be withdrawn.

Claims 17-19, 22, 25, 27-28 and 30-32 ultimately depend from one of the independent claims discussed above, and each claim recites additional elements. Accordingly, the rejection of these dependent claims under 35 USC 102(b) also must be withdrawn.

In the Office Action, claims 39 and 40 were rejected under 35 USC 102(b) as anticipated by the Shilman reference, RU 2162272 C1. This rejection is respectfully, but strongly traversed.

The Shilman reference describes a combined electric motor 1 having a head 2 with a cable entry. The cable entry has a plug 5 whose body 6 is fastened to the head 2 at a plug receptacle 8. Within receptacle 8, a relief valve is constructed via a separate spring-loaded stem 16 or via a plug 17 placed in an opening 18. (See description and Figures 2, 3).

However, neither of these arrangements discloses or suggests the unique approach of using the "terminal block" as a movable member between "a sealed position and an open position" to enable fluid communication, as recited in independent claim 39. The movable terminal block is a new approach unrelated to the teachings of the cited document, because it greatly simplifies construction of the cable connection as opposed to using separate check valves

and corresponding flow channels as described in the Shilman reference. The Shilman reference describes a spring biased stem 16 within a receptacle 8, but the reference fails to teach any type of terminal block that is movable between positions. As described in previous responses, the reference also fails to disclose other elements of the subject claims, and the rejection under 35 USC 102 (b) is unsupported. Accordingly, the rejection should be withdrawn.

Claim 40 directly depends from independent claim 39 and recites additional elements. Accordingly, the rejection of claim 40 also should be withdrawn.

In the Office Action, claims 47-51 were rejected under 35 USC 102(e) as anticipated by the Du et al. reference, US Publication No.: 2005/0087343. This rejection is respectfully traversed.

The Du et al. reference describes a system and method for reducing wear on a motor protector. In one embodiment, a motor protector 16 comprises a vent passageway 88 for venting air from a head section chamber 66 during oil-filling or other procedures. In one embodiment, the vent passageway 88 is disposed of through a shaft 40 and ultimately to an outlet or valve 94. (See page 3, paragraph 0030). Accordingly, this portion of the Du et. al. reference teaches an approach for venting gas rather than providing a sump for collecting gas.

In the Office Action, page 5, a statement is made that the Du et al. reference discloses a protector section comprising "a bubble sump (88)" however this label is provided only in the Office Action. The actual reference does not describe a bubble sump but rather the "vent passageway 88" that can be used to vent air during filling of the motor protector with oil. The disclosure and teaching of such a different structure and approach cannot be considered anticipatory. Because the cited reference fails to disclose each and every element of independent claim 51, e.g. "a bubble sump to maintain any released gases in a dedicated volume", the rejection under 35 USC 102(e) must be withdrawn. It should be noted that because the cited reference fails to disclose elements of the subject claims, it is not necessary to address any ineffectiveness of the reference based on the potential common inventorship or prior invention.

Claims 47-50 directly depend from independent claim 51 and recite additional unique elements. Accordingly, the rejection of dependent claims 47-50 also should be withdrawn.

In the Office Action, claims 1, 3-5, 7, 8, 15, 23 and 33 were rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Scarsdale reference, US Patent No.: 6,290,430. This rejection is respectfully traversed.

As described above, the Shaw et al. reference discloses a sealing apparatus that is used with a submersible motor. The sealing apparatus has a tubular housing assembly 10 attached to the top end of a conventional submersible electric motor housing 1. A motor shaft 1d is provided with splines 1e that engage corresponding splines of a coupling 2, but the connection is not axially affixed. Furthermore, the Shaw et al. reference fails to disclose or suggest oil communication holes deployed at a nonzero angle with respect to a longitudinal axis such that the nonzero angle corresponds with an angle at which the motive unit is positioned relative to vertical during filling of the motive unit with oil. However, the rejection of claims 1, 3-5, 7, 8, 15, 23 and 33 relies on the same improper interpretation of the Shaw et al. reference as discussed above with respect to the rejection of claims 16-19, 22, 25-28 and 30-32. Accordingly, even if the Scarsdale reference is added, the combination fails to disclose, teach or suggest numerous elements of the subject claims.

For example, the references, taken alone or in combination, fail to disclose, teach or suggest a motive unit in which the motor section "comprises a motor section shaft and the motor protector section comprises a motor protection section shaft, the motor section shaft and the motor protector section shaft being axially affixed to each other with respect to a longitudinal axis of the motive unit" as recited in independent claim 1. (Emphasis added). By way of further example, the references also fail to disclose, teach or suggest connecting a motor section shaft to a protector section shaft "to form an axially affixed connection"; or prefilling the combined motor section and protector section "prior to delivery of the combined motor section and protector section to a wellbore location " as recited in independent claim 16 and therefore in its dependent claim 23. Additionally, the references fail to disclose, teach or suggest "delivering the motive unit to an oil production well as a single unit" or "providing the motive unit with a

plurality of oil communication holes deployed at a nonzero angle with respect to the longitudinal axis such that the nonzero angle of the plurality of oil communication holes corresponds with an angle at which the motive unit is positioned relative to vertical during filling of the motive unit with oil" as recited in independent claim 26 and therefore in its independent claim 33. The Scarsdale reference is relied on as disclosing self-lubricating bushings. However, regardless of whether the Scarsdale reference discloses such features, the Shaw et al. reference completely fails to disclose the elements for which it is cited. Accordingly, no prima facie case of obviousness can be established, and the rejection under 35 USC 103 should be withdrawn.

Claims 3-5, 7, 8 and 15 ultimately depend from independent claim 1 discussed above, and each claim recites additional elements. Accordingly, no prima facie case of obviousness can be established with respect to these dependent claims, and the rejection should be withdrawn.

Furthermore, the rejection of the pending claims 3-5 was supported by the taking of Official Notice that these claims recite equivalent connections to the connection disclosed in the Shaw et al. reference. Applicant again seasonably traverses and challenges the Examiner's use of Official Notice. In the Office Action, page 8, the Examiner cites the Yorulmazoglu reference (US 6,398,521) which is an unrelated patent that discloses various mechanisms for connecting shaft ends. However, incorporation of the Yorulmazoglu features would defeat the purpose of the Shaw et al. design which relies on the severability of the sealing housing assembly 10 and the submersible motor housing 1 via flanges 10a and 1a. Accordingly, addition of the Yorulmazoglu supports neither the taking of Official Notice nor the rejection of these dependent claims under 35 USC 103.

In the Office Action, claim 6 was rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Scarsdale reference and further in view of the Shilman reference. This rejection is respectfully traversed; however claim 6 depends from independent claim 1. The Shilman reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. and Scarsdale references as discussed above with respect to corresponding independent claim 1. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

In the Office Action, claims 9-11 were rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Scarsdale reference and further in view of the Kinsinger reference, US Patent No.: 6,091,175. This rejection is respectfully traversed; however claims 9-11 ultimately depend from independent claim 1 and recite additional elements. The Kinsinger reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. and Scarsdale references as discussed above with respect to corresponding independent claim 1. Accordingly, no prima facie case of obviousness can be established with respect to these dependent claims, and the rejection should be withdrawn.

Furthermore, the rejection of pending claim 11 was supported by the taking of Official Notice that it would have been obvious to use a tolerance ring connection. However, Applicant disagrees with this assertion. Applicant again seasonably traverses and challenges the Examiner's use of Official Notice. In the Office Action, page 10, the Examiner cites the Yamamoto et al. reference (US 6,854,556) and the Kurokawa et al. reference (US 6,394,220) which are unrelated patents, and Applicant objects to the characterization of these references. Regardless, affixing the shaft ends in Shaw et al. would defeat the purpose of the Shaw et al. design which employs a separate sealing housing assembly 10 and submersible motor housing 1 which are selectively joined via flanges 10a and 1a. Accordingly, addition of these references supports neither the taking of Official Notice nor the rejection of these dependent claims under 35 USC 103.

In the Office Action, claim 13 was rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Scarsdale reference and further in view of the Vandevier reference, US Patent No.: 4,521,708. This rejection is respectfully traversed; however claim 13 depends from independent claim 1 and recites additional elements. The Vandevier reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. and Scarsdale references as discussed above with respect to corresponding independent claim 1. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

In the Office Action, claim 14 was rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Scarsdale reference and further in view of the Howell et al. reference, US Patent No.: 6,602,059. This rejection is respectfully traversed; however claim 14 depends from independent claim 1 and recites additional elements. The Howell et al. reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. and Scarsdale references as discussed above with respect to corresponding independent claim 1. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

In the Office Action, claim 20 was rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Shilman reference. This rejection is respectfully traversed; however claim 20 depends from independent claim 16. The Shilman reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. reference as discussed above with respect to the corresponding independent claim 16. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

In the Office Action, claim 29 was rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference. This rejection is respectfully traversed; however claim 29 ultimately depends from independent claim 26 and recites additional elements, e.g. "a single, unitary shaft". The Shaw et al. reference provides no additional disclosure or suggestion relative to that discussed above with respect to independent claim 26. Accordingly, the Shaw et al. reference fails to establish a prima facie case of obviousness with respect to independent claim 26 or its dependent claim 29. The rejection under 35 USC 103(a) should be withdrawn.

In the Office Action, claim 34 was rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Vandevier reference. This rejection is respectfully traversed; however claim 34 depends from independent claim 26 and recites additional elements. The Vandevier reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. reference as discussed above with respect to the corresponding

independent claim 26. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

In the Office Action, claims 24 and 35 were rejected under 35 USC 103(a) as unpatentable over the Shaw et al. reference in view of the Howell et al. reference. This rejection is respectfully traversed, however claims 24 and 35 depend from independent claims 16 and 26, respectfully, and recite additional elements. The Howell et al. reference provides no additional disclosure that would obviate the deficiencies of disclosure in the Shaw et al. reference as discussed above with respect to the corresponding independent claims. Accordingly, no prima facie case of obviousness has been established, and the rejection should be withdrawn.

In the Office Action, claims 43-45 were rejected under 35 USC 103(a) as unpatentable over the Kinsinger reference in view of the Yamamoto et al. reference, US Patent No.: 6,854,556, and the Kurokawa et al. reference, US Patent No.: 6,394,220. This rejection is respectfully traversed.

The Kinsinger reference describes a submersible pumping system comprising a motor containing self-centering rotor bearing assemblies. Rotor sections 28 are rotatively coupled to a shaft 26, and sleeves 48 also are rotatively coupled to the shaft 26. However, the sleeves 48 are "not axially locked to shaft 26" to thereby provide a certain amount of freedom of movement in an axial direction. The axial movement is used to accommodate, for example, relative thermal expansion and contraction. (See column 4, lines 48-67). Accordingly, even if the Yamamoto et al. and the Kurokawa et al. references could be construed as disclosing sleeves press fit onto a shaft, the Kinsinger reference explicitly teaches against such an application in a submersible pumping system. Instead, the Kinsinger reference teaches the use of sleeves 48 that have freedom to move in an axial direction. This teaching would lead someone of ordinary skill in the art away from the combination proposed by the Examiner in the Office Action. Accordingly, no prima facie case of obviousness can be established, and the rejection of claims 43-45 must be withdrawn.

Furthermore, the Yamamoto et al. reference, in fact, teaches a power steering device that includes a torque limiter 11' having a torque setting member 51. The torque setting member 51 is fitted between an outer circumference of a third shaft section and an inner circumference of a driven bevel gear such that it is subjected to diametric deformation. (See column 11, lines 50-57). The Kurokawa et al. reference also discloses a power steering device having a metal sleeve 11 formed integrally with a worm wheel 10 and fixed to a third shaft by press-fitting, a key, or the like. (See column 3, lines 42-46). However, neither of these supporting references describes or suggests the journal bearing or the replaceable sleeve of the journal bearing, wherein the replaceable sleeve is press fit onto the drive shaft with a tolerance ring. This lack of disclosure, teaching or suggestion further establishes that no prima facie case of obviousness is supported by the cited references, and the rejection of claims 43-45 must be withdrawn.

As discussed in the previous Reply, 35 USC 2, sets forth the powers and duties of the United States Patent and Trademark Office. Under those specific powers, the Patent Office "shall facilitate and expedite the processing of patent applications" as set forth in 35 USC 2(b)(2)(C). Applicant respectfully asserts the Patent Office has not acted in a manner that facilitates and expedites the processing of patent applications with respect to the present application. In an early Office Action, claims 1-11, 13-20 and 22-35 were allowed. That allowance was withdrawn in the subsequent Office Action, and claims 47-51 were allowed. The allowance of claims 47-51 was then affirmed in the next Office Action. However, the allowance of claims 47-51 was withdrawn in a subsequent Office Action. Furthermore, the present Office Action rejects all pending claims based on 13 different rejections, many of which rely on the same references used in prior Office Actions. Within the 13 different rejections, support for various assertions made in the present Office Action was provided through Official Notice. Respectfully, the practice of repeatedly allowing claims and withdrawing the allowance via numerous Office Actions without substantial changes in the cited art is not believed in keeping with the mandate of the US Patent and Trademark Office.

In view of the foregoing remarks, the pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. A. Van Someren', written over a horizontal line.

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Date: March 12, 2009

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